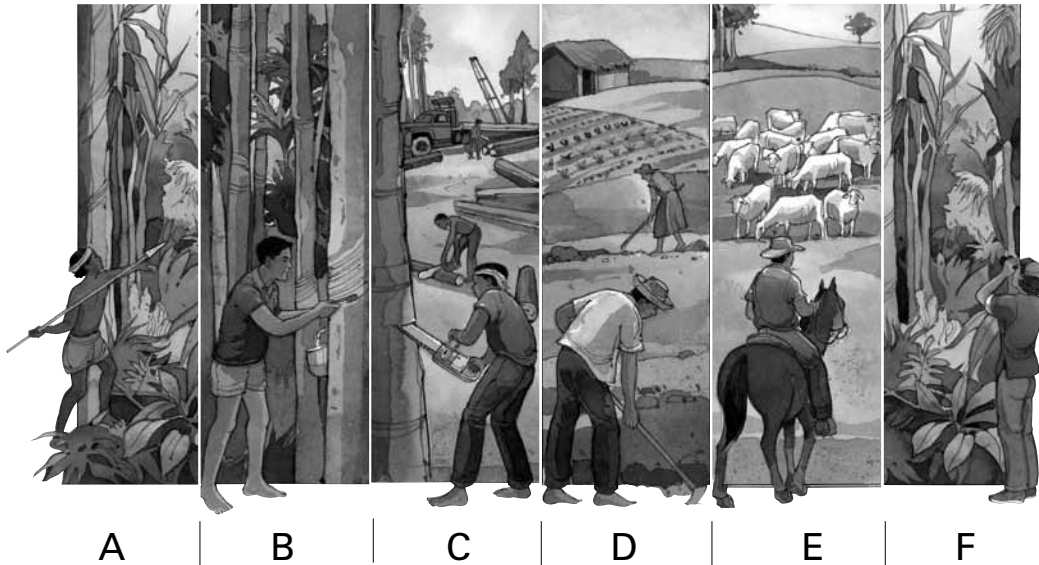


Preview

Watch each video and decide which image shown below best corresponds with what you saw. Write the image letter (A–F) in the correct place in the table. Then think of a term that describes the profession of the person doing the activity. For example, if you saw a picture of someone extinguishing a forest fire, that person would be a firefighter. Finally, come up with at least one reason the person is doing the activity.



Video	Image letter	Profession	Reason
1			
2			
3			
4			
5			
6			

Vocabulary

As each image is projected, decide which term below best corresponds to the image. Write the image letter next to the term. Then draw a simple picture representing the term. Finally, connect the term and the picture you drew to the correct corresponding definition.

Term	Image Letter	Symbol
1. biodiversity		
2. deforestation		
3. sustainable development		
4. tropical rainforest		

Definition

using resources in ways that meet the needs of people today without hurting the ability of future generations to meet their own needs

the variety of plants and animals living in one area, or on Earth

cutting and removing trees from the forest to make way for farming or ranching

a broadleaf evergreen forest found in wet and hot regions near the equator

Rainforest Groups

Native Amazonians

Once there were as many as 10 million native people living in the Amazon rainforest. Today the number of native Amazonians is much smaller. Those who remain want one thing above all: to continue their traditional way of life.

A Sustainable Way of Life Native people have lived in the rainforest for about 12,000 years. Many live as they always have. They hunt and fish, and they grow crops on small plots of land they have cleared in the forest. When a field is no longer fertile, they clear a new one somewhere else. Over time, new forest covers the old field. This is a sustainable way of life. It uses the resources of the Amazon rainforest without causing long-term damage.

In the 1960s, the government of Brazil decided to open the Amazon basin to development. It began by building a highway into the rainforest. Farmers, ranchers, and loggers followed the road into the Amazon region.

The arrival of so many newcomers has hurt native Amazonians. Many native people have been driven from their homelands to make room for farms and ranches. Some have died from diseases brought by newcomers. Others have been killed or injured in land use conflicts.

Save the Forest to Save Us Today native Amazonians are fighting to save parts of the rainforest from development. They say they have a right to preserve themselves and their way of life. As native leader Davi Kopenawa has said, "I want to live where I really belong, on my own land."

In their struggle to survive, native Amazonians have had to learn new skills. One is how to speak Portuguese, the official language of Brazil. Another is how to work with Brazil's government and legal system. Native groups have called on the Brazilian government to make them the legal owners of their homelands. Only then will they be able to keep others from destroying their rainforest home.



Rubber Tappers

Rubber tappers have lived in the Amazon basin for many generations. Rubber tappers “tap,” or collect, the sap from rubber trees that grow in the rainforest. The sap is then dried to make rubber products such as erasers or tires for cars and bikes.

Rubber Tapping Does Not Hurt the Forest Rubber tappers first came to the Amazon in the 1870s. They were hired to work on rubber tree plantations in the rainforest. When the price of rubber dropped, most of the plantations were abandoned. But some rubber tappers stayed and continued to make their living in the rainforest.

Rubber tappers remove sap from a rubber tree by making diagonal cuts in the bark. They collect the sap in cups. Removing the sap in this way does not harm the tree. This makes rubber tapping a sustainable activity. It is one way to use the resources of the rainforest without harming the environment.

In the 1960s, the government of Brazil decided that there were better ways to use the rainforest. It encouraged people to clear the forest for farms and ranches. In the deforestation that followed, many rubber trees disappeared. This led to land use conflict between rubber tappers and newcomers.

Let Us Continue Our Sustainable Way of Life Rubber tappers want to go on making a living from the rainforest. To do this, they need to stop the widespread clearing of trees. They have asked the government to create protected reserves in the rainforest. These areas would be set aside for sustainable activities like rubber tapping.

Rubber tappers believe that their right to the rainforest comes from having worked there for so long. They also argue that their way of life does not harm the rainforest. For this reason, they believe, the government should protect their activities.



Loggers

Logging companies began moving into the Amazon basin in the 1960s. Loggers harvest trees from forests for use in wood products. These products range from paper to fine furniture.

The Rainforest Is a Source of Valuable Hardwoods A great variety of trees grows in the Amazon rainforest. The most valuable are hardwood trees such as mahogany and rosewood. Furniture makers all over the world use the beautiful wood from these trees.

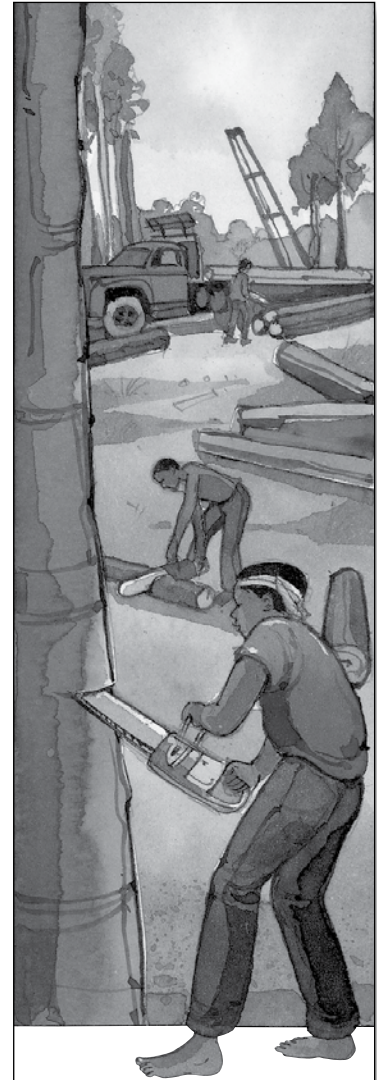
Unfortunately, these valuable trees are scattered throughout the rainforest. This makes it hard to find and cut just the hardwoods. Instead, loggers clear-cut whole patches of rainforest. This means that they cut down all of the trees in an area. Once all the trees are removed, the loggers move on to another patch.

Logging companies argue that clear-cutting is the only way they can make money. But clear-cutting is also a major cause of deforestation. The larger the area that is stripped of its trees, the longer it takes for the rainforest to grow back.

Logging also leads to other types of development. Logging companies build roads deep into the rainforest so that they can move logs by truck. Settlers looking for land follow these logging roads into the forest. Once there, they claim land for farming and ranching.

We Need Trees to Help Brazil's Economy Many groups oppose clear-cutting of the rainforest. Loggers reply that they are helping Brazil's economy grow. Logging, they say, creates jobs for people in the forestry industry. It also provides wood for Brazil's furniture factories and paper mills.

Lumber companies also argue that they have made forestry a valuable economic activity for Brazil. In 2005, Brazil exported more than \$5 billion worth of wood. The money earned from these sales is helping Brazil to pay off its debts. It is also making life better for many people.



Settlers

Brazil has the ninth largest economy in the world. Yet over a quarter of Brazilians are poor. In rural areas, even more of the population is poor.

In the 1960s, the Brazilian government began encouraging poor people to move to the Amazon rainforest. The settlers came in large numbers, looking for land to farm.

A Lot of Land, but Not for the Poor Brazil is a vast country but has limited areas of farmland. And this land is not shared equally. A few wealthy families have long owned most of the best farmland. Millions of poor Brazilians own no land at all. For many families, the idea of owning a farm in the Amazon basin once seemed like a distant dream.

The Brazilian government did what it could to make this dream come true. Poor families were brought to the rainforest by the government. They were given free land and money to plant their first crops.

We Need Land to Feed Our Families Over time, the settlers' dream has become a nightmare for many farm families. As native Amazonians learned long ago, farming in a rainforest is difficult. The thin soil is surprisingly poor in nutrients, the substances that make a field fertile. Constant rainfall soon washes away whatever nutrients the soil once contained. As the soil loses its fertility, the amount of food it can produce shrinks. Native Amazonians solved this problem by clearing new fields every few years. Over time, their abandoned fields regained some fertility.

Brazilian settlers cannot move so easily. As more settlers have cleared land for farming, opposition to them has grown. Native Amazonians, rubber tappers, and ranchers all want settlers to leave the rainforest. Settlers argue that there is no land for them in other parts of Brazil. They say they must look to the rainforest for land to feed their families.



Cattle Ranchers

A rainforest may not seem like cattle country. But since the 1960s, parts of the Amazon basin have become just that. Although Amazon cattle ranchers are a small group, they own large areas of rainforest land.

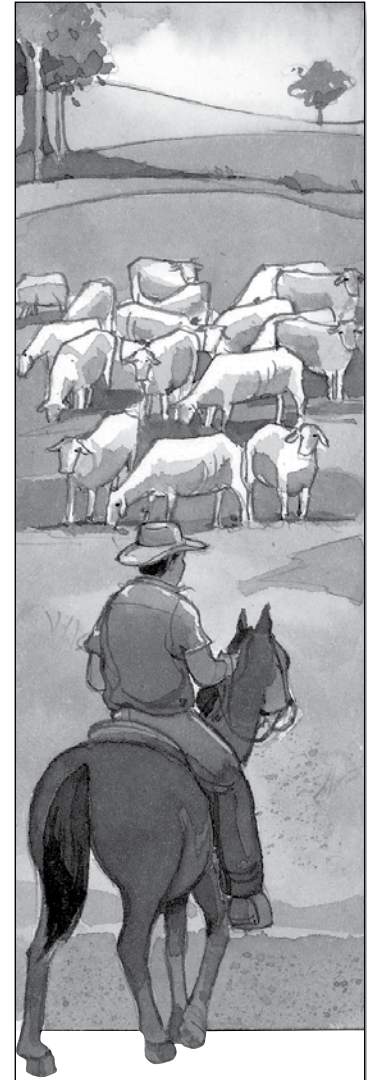
Cattle Need Grasslands to Graze Rainforest cattle graze mainly on grass. They eat the grass in an area all the way down to the dirt. Then they are moved to a new area with fresh grass to eat. Moving cattle from place to place gives grazed areas a chance to grow new grass. It also uses up a lot of land.

Today cattle can be found grazing on vast areas of grassland in the Amazon basin. Loggers cleared some of this land. Farmers and ranchers cleared the rest. Once large areas of rainforest are cleared, the trees seldom grow back. Instead, the cleared areas become grasslands. This permanent deforestation upsets many people. But it is a great benefit to ranchers.

We Need Land to Feed the World Many people argue that cattle don't belong in a rainforest. Cattle ranchers strongly disagree. They say they are making good use of rainforest land by raising food for the world and earning money for Brazil.

Many countries, such as Russia, Iran, and China import beef from Brazil. Some environmental groups are not happy with this trade. They estimate that nearly 80% of the land in the Amazon rainforest being cleared is for cattle grazing.

Like logging, cattle ranching has become an important economic activity in Brazil. In 2008, the value of beef exported to other countries was more than \$3 billion. Brazil can use the money earned from beef sales to help pay its debts and take care of its citizens.



Environmentalists

Not all Brazilians want to see the Amazon basin developed. Environmental groups have worked for years to slow the clearing of the rainforest. Their ideas have led to conflict with many other groups.

Protecting the Biodiversity of the Rainforest Scientists and environmentalists began coming to the rainforest in the 1970s. Some came to study rainforest plants. They hoped to find plants that could cure diseases. Others came to study rainforest animals. Still others came to work with native peoples.

All these groups are united in wanting to protect the rainforest and its biodiversity. Scientists estimate that a 2.5-acre patch of rainforest contains 750 kinds of trees. The same patch supports 1,500 kinds of flowering plants. It is home to 125 species of mammals and 400 kinds of birds. And these numbers include only the plants and animals that scientists already know about. Countless unknown species also live in the rainforest.

We Want Slower, Smarter Rainforest Development Environmental groups argue that all rainforest species have a right to exist. This means saving their rainforest home. Environmentalists therefore want to slow down development of the rainforest. This would give scientists time to study the effects of new activities. With that information, better decisions can be made for the future.

In 2000, environmental groups won a major victory against ranchers. They were able to block a law that would have let ranchers clear rainforest land without restrictions. Another victory came in 2004. In that year, Brazil's government created two large rainforest reserves. Only sustainable activities like rubber tapping are allowed in these places. In 2008, Brazil's leaders set up a \$21 billion fund. It will pay for conservation and sustainable development in the Amazon. Norway has already promised to give a billion dollars to this fund.



P r o c e s s i n g

Write a letter to the government of Brazil that explains your ideas about how best to preserve and use the resources of the Amazon rainforest. Your letter should follow this format:

- a proper greeting (for example, “Dear Ambassador” or “Dear Consul”)
- an introductory paragraph that identifies at least four groups that want to use or preserve the rainforest
- a paragraph that describes at least two actions that you think will best preserve and use the rainforest’s resources
- a paragraph that explains how these actions will meet the needs or concerns of the groups you identified
- a proper closing (for instance, “Sincerely”)